Cloud Video Surveillance & Data Management Platform

Sentir®



Enabling Cloud Video Surveillance

www.iveda.com

## Sentir<sup>®</sup> can be Licensed Globally to Telcos, Data Centers, ISPs, and Other Organizations

#### **Overview**

Sentir is Iveda's proprietary video and data management platform with video streaming and storage technology. It offers the video surveillance functionality of traditional security industry DVRs (digital video recorders) and NVRs (network video recorders), all delivered from the cloud as an application. End users can access live and recorded video from the cloud, not from a DVR, utilizing a Web browser or mobile app. Sentir can be licensed to service providers around the world to enable cloud video surveillance offering to their customers without the time and resources required for in-house development.

For the end users, Sentir eliminates infrastructure management, maintenance and support burdens because every aspect is managed by the service provider, including video applications, runtime, middleware, operating system, virtualization, servers, storage, and networking. The platform provides video surveillance without additional hardware; cameras, power, and an Internet connection are all the user needs. Video can be accessed 24/7 using a web browser or a mobile app.

Any Sentir-enabled device will have plug and play capabilities. Since everything is web provisioned, camera and account setup and configuration are extremely simple. For end users, no more technical or IT help required.

Unlike traditional NVR software which is conventionally sold as a perpetual license with a large upfront cost, Sentir is installed at the service provider's data center with no upfront fee, provided a certain minimum license commitment is made. Iveda charges the service provider a minimal monthly fee, per device activation. The service provider may pay the license fees monthly, annually or for longer period. Certain feature upgrades and customization are available, providing total flexibility and control of budget.

# **True Cloud Computing Platform**

In recent years, there has been a move by some traditional NVR software companies to position their solutions as "Cloud Computing" which generally do not qualify for the true definition of Cloud Computing, also known as cloud-washing.

Sentir passes all the accepted standards of Cloud Computing. With defined characteristics such as commercial accessibility over the web, software management from a central location, a "one-tomany" delivery model, no user handling of software upgrades and patches, and API availability for integration – Sentir is true Cloud. Customers are provided with a license to use Sentir applications on a per device basis, either as a service-on-demand through a subscription or a pay-as-you-go model. To add another level of uniqueness and differentiation from current industry solutions, Sentir has an integrated cloud storage management technology with a built in software-defined storage technology that is designed with Big Data in mind.





## **Ideal Sentir Distributors**

Telecommunications (telcos), data centers, Internet Service Providers (ISPs), and cable service providers around the world can now leverage Sentir within their global infrastructure for another value-add service by offering video surveillance capabilities to their customers on a subscription basis.

Sentir is ideal for companies providing services to an existing customer base (consumers and small businesses), that are already paying monthly service fees. Cloud-video hosting services can be bundled with their existing offerings to provide a new recurring revenue stream, while enhancing customer value, satisfaction and loyalty.

Likewise, security integrators can now offer cloud video hosting services to customers who prefer to reduce their capital outlays and instead pay a monthly fee for their security surveillance needs. This new service offering provides security integrators with recurring monthly revenue, while eliminating the need to build and maintain their own cloud infrastructure.

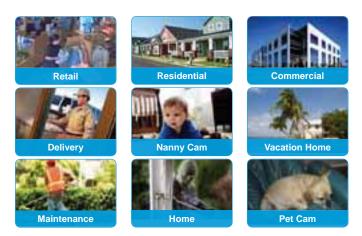


# End Users Benefit from Sentir

Sentir provides easy to set up cloud-hosted video surveillance system to end users for countless applications. Safety and security for the home and business is the most common application. But it goes beyond traditional usage of surveillance cameras; it simplifies the management of day-to-day activities, from remotely supervising business facilities to checking the front door to see when the kids get home from school or if a delivery has been made. Sentir's portable and mobile video services allow a parent to stream live video of a soccer game to the other parent who cannot physically be at the game or record the game for sharing with other family members wherever they may be.

As Sentir evolved, new devices have been enabled for Sentir. Iveda now offers IvedaHome, wireless home automation system.

The law enforcement agency has been clamoring for body cameras that can stream live video. Sentir can provide this functionality, but body camera manufacturers are yet to add a built-in IP streaming via data or Bluetooth to smartphone for their devices. Until then, Iveda offers IvedaMobile® for this industry. Using the camera on smartphones and cellular data, live video can be transmitted securely and shared instantaneously.



Simple Surveillance Solution for Home or Business

Today, data storage and processing power needs for companies have increased several times, even data amount for small enterprises have entered the field of TB level, while large-scale enterprises have entered into PB level. Cloud storage solution alleviates this issue for end users.

# Scalable Video Surveillance Cloud Platform

Sentir utilizes a virtualization system and a clustered NAS (network-attached storage) system, transforming them into a rack-based scalable video surveillance cloud platform. The virtualization and NAS systems are well-integrated and work as a whole to provide a stable and flexible environment for surveillance appliances, which makes Sentir a one-stop-shopping solution. Instead of building the platform piece by piece, Sentir provides an easy way to build your own cloud-based video surveillance system without all the complicated integration process.

#### Virtualization System

The virtualization system in Sentir works with the Kernel-based Virtual Machine (KVM) hypervisor to provide a full virtualization solution for Linux on x86 hardware containing virtualization extensions. This system enables the possibility of scaling the video surveillance service by dynamically adding more surveillance-video-ready virtual machines. With a few mouse clicks, surveillance-video-ready virtual machines can be created to serve hundreds of multiple simultaneous live video streams. As the business grows, the virtualization system itself can be expanded by adding more physical servers.

Sentir provides virtualized customization, accelerated feature delivery, open integration protocols, and collaborative functionality. It is a true "cloud video platform" addressing high availability, high performance, and scalability. Its efficient storage technology can reuse commodity hardware and repurpose existing storage to prevent vendor lock-in and functionality lock-down. This enables large scale global service providers to deliver instantaneous, mass scale, video hosting services with all the performance, intelligence, and storage delivered from the cloud.

#### Clustered Cloud Storage System

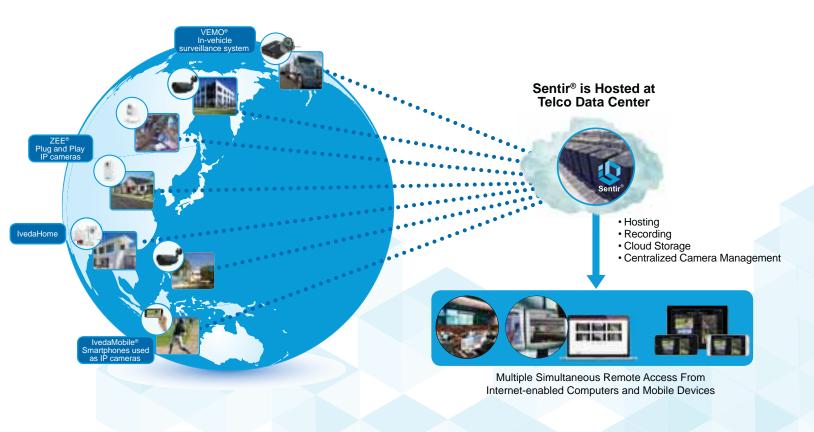
Sentir's clustered NAS system can provide capacity expansion, in synchronously extending system performance and availability. When more nodes in the cluster are added, performance improves and storage system space increases. Through clustering system and distributed file systems, multiple NAS controllers can be combined as a whole. With parallel processing and load balancing mechanisms, best use of processor performance and disk space on all nodes can be achieved.

Due to the characteristics of clustered NAS itself, the system will continue operating even when some of the nodes crash, rather than causing the system to shut down. This uninterrupted service storage system will greatly reduce the possibility of data loss. While traditional low-level NAS can only support 50-terabyte (TB) file system, clustered NAS file system can support petabyte (PB) level of file system, significantly reducing design complexity of the parent application and further improving system availability, stability, and scalability of the upper layer software.

#### Storage System

- High scalability (capacity and performance)
- Big file system (PB level)
- Data replication
- High Availability (HA)
- Standard protocols (NFS, CIFS, Native driver for Linux)
- Online expansion
- Online healing
- Monitoring manager





# **Sentir-Enabled Devices**





ZEE<sup>®</sup> Plug & Play Surveillance

ZEE cameras are inexpensive plug and play, cloud-hosted IP cameras. The solution is simple to set up, yet powerful surveillance solution, especially designed with consumers and small businesses in mind. ZEE cameras hosted in the cloud provide an inexpensive and easy-to-install enterprise-level surveillance solution, eliminating many hours of network setup and upkeep.



VEMO<sup>®</sup> In-Vehicle Mobile Streaming Video

VEMO is the first fully integrated in-vehicle surveillance system streaming live video to the cloud, enabling real-time situational assessment of mission-critical field activities. This untethered surveillance solution utilizes cellular service to stream live and recorded video from vehicles to the cloud. Video from a single vehicle or an entire fleet can be viewed on a single online dashboard. The solution includes a map-based user interface for tracking current location of vehicles using VEMO's GPS.





#### IvedaMobile<sup>®</sup> Turns smartphones to IP Cameras

IvedaMobile turns smartphones and tablets into mobile, cloud video streaming devices. After signing up for service with a service provider and downloading a free app on iOS and certain Android devices, IvedaMobile quickly transforms smartphones or tablets into video and audio transmitters. Capturing and sharing video on these devices are not new, but streaming live video to the cloud and sharing to multiple simultaneous users for both live and recorded video with audio, sets IvedaMobile apart from other services. Additionally, video is securely transmitted and recorded in the cloud, not on the device.

# IvedaHome

IvedaHome is a simple to install, easy to use, wireless home automation system accessed through the cloud. With IvedaHome, a smartphone or tablet is used to access the system for home security, power saving, and life conveniences. The system is plug and play eliminating complex network configurations and consists of wireless sensors and devices eliminating the need of cables and cumbersome installation, turning the home into a smart home in minutes.



## **Go-to-Market Options**

With Sentir, going to market with cloud video surveillance and home automation is fast and easy. Iveda will install Sentir at the service provider's data center with no upfront. Iveda will license the Sentir software for the service provider to manage and provision and charge the service provider a monthly license fee per device.

For service providers, without the physical data center infrastructure, the service provider may utilize lveda's existing cloud and simply begin offering the service to their customers. Iveda will charge the service provider a monthly hosting and licensing fee per device.

- Leverage lveda's sales and marketing tools
- Reduce churn with new innovative services
- Bundle with existing services
- Immediate cashflow positive
- Increase ARPU

## Why Partner with Iveda

- Proprietary cloud-video platform
- Plug and play cameras
- Web provisioning
- User-friendly web interface
- Software-defined storage
- Scalable and flexible
- 10+ years of cloud-video experience
- Subscription service/licensing model
- Diverse products
- Platform designed to integrate with any device
- SAFETY Act Designation by the U.S. Department of Homeland Security as a Qualified Anti-Terrorism Technology Provider

## About Iveda

Founded in 2003, Iveda (OTCQB:IVDA) is an established and innovative company, delivering secure, enterprise-class video and data management platform, leveraging the power of cloud computing. Iveda licenses its Sentir® video and data management platform, with proprietary video streaming and Big Data storage technology, to service providers. Iveda enables service providers a recurring revenue model for plug-and-play cloud video surveillance and home automation offering to their customers.

With Sentir, Iveda delivers the true essence of video surveillance through cloud computing addressing scalability, flexibility, and centralized video management for mass distribution of VSaaS.

Iveda has a wide-array of Sentir-enabled cloud video surveillance applications with fully integrated products. Iveda utilizes service providers as its distribution channel.

Iveda is headquartered in Mesa, Arizona U.S.A. and has a subsidiary in Taiwan (MEGAsys). Its common stock trades on the OTCQB under the symbol "IVDA."



In April 2009, Iveda was approved as a Qualified Anti-Terrorism Technology provider under a formal SAFETY Act Designation by the U.S. Department of Homeland Security (DHS). The designation gives the Company, its partners and customers certain liability protection. Iveda is the first provider of IP Video Hosting and Real-Time Surveillance Technology with this designation. The Designation was renewed in October 2014 and in January 2016 Iveda's Designation was elevated to Certification. The Certification added Iveda on the "Approved Products List for Homeland Security."

A publicly-traded company under the stock symbol IVDA



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